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Light to Radial Velocities

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Abstract

This essay provides an in depth review into the computations for radial velocities, furnishing us with new ways to find the real velocity of any way in space and in any media. Additionally it illustrates how and why the expansion and contraction of the waves of the spectrum are not always proportional to the change in velocity for all lengths. It varies from short to longer waves for obvious reasons. The index to retardation can therefore not be used for length nor for velocity, nor is it applicable to full lengths but only to half-lengths by which all waves refract as well as reflect.

Key words
Light, density, velocity

Essay

How is the speed of light calculated? It appears we had no means to calculate the velocity of any wave; instead it was measured and currently accepted at 299.792/km/s in space. That particular measure however failed to provide at what wavelength that was. Although understandably when the waves arrive at all lengths once cannot just pick one unless we make our readings with a single wavelength.

As then all waves travel with an angular moment in conjunction with its linear movement it must pass by a certain width, an amplitude. And how much shall that be, and/or how does one go about discovering that amplitude for a specific measure thereof? For the velocity of any wave can always be found mathematically as long as we have its particulars, length, width, and constant. A wave is never a line, or else it is not a wave, wherefore its amplitude is as important as its length.

I now am enabled to show how simple it is to mathematically obtain the velocity of any wave for its distance in time, along with its correct amplitude. I did so utilizing the largest of wavelength in the optic range by our reading of 299.792/km/s. Since then that is a velocity for distance in time we must also have a velocity whereby the waves are factually transported, like that of magnetic that we have taken at an arbitrary measure of 300.000/km/s. That then is the velocity of **a "straight**" magnetic line without any angular moment.

Consequently when we come to calculate a wave of that line, its net velocity will always be less to the constant since it must pass by a wave formation that adds its angular to its linear, reducing its constant into a velocity for distance in time.

And so now we have two of the three factors, the length that we wish to have our data on, and the constant for our calculation. Then comes the amplitude that we have yet to discover. And taking the 7000a length its amplitude must correspond to the velocity of

299.792/km/s, if not our findings would be in error. And it must be large enough to pass around the atoms in the air, for we know that the 7000a length always passes through air without any obstruction but not so upon the surface of the earth where the atoms are too large for light to pass. Or even the water molecules in the air to block the waves showing us the clouds

And so I came up with an amplitude in the diameter of 1.5414a that times 3.14 comes to a circumference of 4.84a. Here we add that angular moment to the nominal length of 7000 to 7004.84a that then divided into the constant the result of which comes to 42.8275etc, and that times the nominal length of 7000 comes to 299.792/km/s. That circumference therefore is correct – **as it must be correct** - since it is just large enough to pass the atom/molecules of the air, and in glass as well as in water, and it corresponds to the velocity.

Except in water or glass where the oxygen atoms have several atoms at its side, at which the light in circumventing the main oxygen atom sooner or later come to strike at the connecting points of these hydrogen atoms hanging at its side. Therefore in water, like the ocean, the waves of light may pass around billions of those molecules yet sooner or later it is bound to strike upon the connecting points and be terminated, wherefore the shortest of all may reach down as far as 600 ft in water at which time all of the light waves will be terminated.

Now that we have the 3 primary factors by which to perform our mathematics, figure 1; will help to illustrate just how that comes about

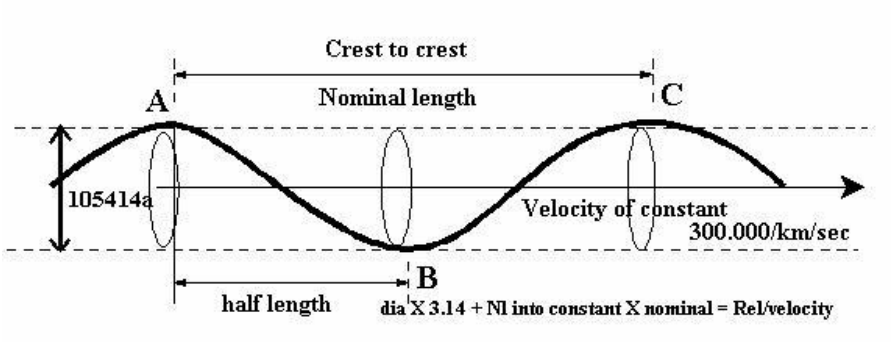

Figure 1. Light's mode of travel having to go around atoms by a constant velocity is reduced for distance in time called its "relative" velocity when measured straight on.

From "A" to "C" (the crest to crest measure) is the nominal length of the wave as it rotates forward around the perimeter of the atoms in its path. The reason that it rotates is because all wavelets are at all times formed in that manner**, and are at all times singular wavelets,** like a code or indent transported by the all pervading movement that as such is called the fundamental movement of nature, and since; as far as we can determine; it has a constant at the rate of 300.000 km/sec. (Ref-7)

The same is often referred to as the magnetic motion that is throughout the whole universe forming and upholding all the mass within it, stars, galaxies, planets, and all else. That fundamental movement in velocity then is procured by what is yet more fundamental by which all atoms come to their nature of being. But that is deep seated.

As thus the format of the wave proceeds from point "A" to "C" it does so over "B" passing around a perimeter being driven at the rate of 300.000/km/sec. As thus the format

passes around a circumference (A/B/C) the net velocity of the whole is reduced compared to that velocity it would have traveled in a straight line from "A" to "C:

Light therefore cannot be thought of nor calculated on any single line because **it is a wave**, and **a wave presents an angular moment to be incorporated in the calculation for its net velocity.**

The formula by which to find that velocity for distance in time called its "Relative velocity" is simply to add the circumference to the nominal length (as the real full length) divided into the velocity of constant - that then is multiplied by the nominal length. Conclusively there are always two velocities of any wave, nor therefore can the notation of the speed of light be written as c. It is Vc, the notation for the velocity of constant, that never needs to be calculated residing at 300.000/km/s, with its time in distance velocity as Rv, meaning relative velocity. The term c therefore is abolished as it must be, with the formula as follows:

Length 7000/angstroms, amplitude 1.5414a X 3.14 = 4.84 + 7000 = 7004.84a into 300.000; resultant times 7000 is 299.792 km/sec. Or 4000a at 4004.84 into 300.000 times 4000 = 299.637/km/s.

The diameter at 1.5414a is correct for those of light, anywhere from 1000a to about 10.000a . Any other wave like those of radio is then bound to travel around thousands of atoms within its amplitude, while for light it is around single atoms. If not then light could pass through walls like those of radio, and we would never see the surface of anything. I then estimate the increment for larger and larger waves to their diameter to come by a factor of ten. A 10/meter wave would thus come to a circumference of 4.84/cm at a velocity of 298.554/km/s.

CALCULATING SPECTRAL SHIFTS.

Now that we know how to accurately calculate the (Rv) velocity of any wave let us see how that applies to some of our spectral readings. Below are the reading how the astronomers came to a radial velocity. Quote:

Absorption lines of hydrogen, normally measured to be at 4861Å and 6563Å, were measured in the spectrum of a particular galaxy to be at 4923Å and 6647Å.

And so: The speed of light, c, has a constant value of 300,000 km/sec. Therefore this galaxy has a **red shift** of z = [(4923 - 4861) / 4861] and z = [(6647 - 6563) / 6563] z = [62 / 4861] and z = [84 / 6563] z = 0.01275

It thus is moving away from us with a **velocity**, v = c * z = 300,000 km/sec * 0.01275 = 3826 km/sec (Ref-1)

Now let us calculate this in **the proper way** rather than Hubble's way, and utilize the waves circumference at 4.84A as a standard for it.

The laboratory velocities as noted for hydrogen are:

4861 + 4.84 = 4,865.84 : 300.000 x 4861 = 299.701-km/sec.

6563 + 4.84 = 6,567.84 : 300.000 x 6563 = 299.779-km/sec

Then the spectral shifts are:

4923 + 4.84 = 4,927.84 : 300.000 x 4923 = 299.705-km/sec

6647 + 4.84 = 6,651.84 : 300.000 x 6647 = 299.782-km/sec

Comparison:

(299.705 minus 299.701 = 4-km/sec) (299.782 minus 299.778 = 4-km/sec)

The comparison of the laboratory from the factual shifts come to no more than 4/km/sec, and not anywhere near the 3,826/km/sec that the astronomers came up with. How therefore were they so much in error, since we - as we know - **in this case cannot be in error**?

To put it factually in order to use light as a measuring tool one must foremost have a good understanding of it. And this we lacked because the Almighty Creator of man did not furnish them with that understanding. This kind of wisdom the Lord teaches only to His sons, and then only to very few that those in turn may teach his fellows. Solomon was one of them, and it pleased the Almighty One to grand me that wisdom and knowledge as well. Nor therefore was I taught in vain but that in turn I may teach others. My degree is not of any earthly standard, but of a much higher order; a masters degree in science as well as in philosophy. (This I mentioned because many are asking; "Who is this author, and how does he know so much?)

The error of the astronomers was in not understanding their measuring tool leading them to the wrong calculations; to use a two dimensional calculation failing to include the angular moments in the wave. A percentage in expansion is not for a wave in its movement, or else it should not be called a wave. Moreover, the light as it was traveling away from that galaxy was moving at a clip of 299.701/km/s. If then the galaxy receded from it by 3,826/km/s, that adds up to 300.027/km/s, a velocity faster than the constant of all magnetic when it is a straight line, and that is in violation of our known laws.

In answer therefore to those many persons that obviously question the validity of any star or galaxy or anything moving faster than the speed of light. Nothing in physical nature ever moves faster than the constant of magnetic, only in the spiritual world is the speed of light but like the speed of sound is to us,

But how can we be so sure that indeed that galaxy is even receding at a clip of 4/km/s? It may very well be at an idle with us, or even approaching on us all because that light as it traveled through space for let's say one light-year, how many red and/or blue shifts did it go through in that year? How many stars did it graze, and what other galaxies did it pass through? And who knows how many refractions it went through by which to determine its true position in the sky; that as such may be way off. In other words; our findings are at best estimations. The only thing that we can be reasonably sure of are those measures and velocities in our own backyard, our solar system.

Another example

If for the example we apply our calculations upon one of the most distant objects found, measured by the Lyman-alpha emission line at 1216a shifted by 8300a, their calculations came to a radial velocity of 287.000/km/s. **(Ref 2)**

The 1216a wave has a velocity of 298.810/km/s. Its expansion to 9516A brings it to a velocity of 299.847/km/s. The increase in velocity of that wave thus comes to 1037/km/s. That mind you is not anywhere near to 287.000. If thus we add the 287.000 velocity to the existing 298.910 (km/s) velocity we arrive at a radial difference of 585.910/km/s. That mind you is nearly twice over what could possible exist for any magnetic movement.

Obviously **Hubble's formula does not work, nor does any credit belong to Georges Lamaitre, (Ref-3) both were wrong**. Nor is there any credit due to me since I was taught by the all time Teacher **to Whom belongs the credit.**

Radial velocity

Now that we seem to have a good understanding in how light travels and how radial velocities are to be calculated, we have as yet to hear the full of it. Below is a Radial Velocity chart, highlighting five readings. The first column shows the radial velocity obtained by man in his calculations. The second column shows the change in wavelengths. The third column shows the velocities of the first noted lengths of the waves. The fourth column shows the velocities of the expanded waves. The fifth column shows the true and correct radial velocities.

Notice how it is from 3/km/s to 6/km/s while the difference in the expansion came to 35a, 36a and 40a. The last one on the list is the one really out of bounds, a radial velocity of no more than 77/km/s that is interpreted into some 274.000/km/s, which of course is absurd.

Radial Velocity chart

Radial velocity	Calcium K in (Dif)	V of Normal length	V of Shifted length	V Radial
0-km/sec	3933 to 3968 (35)	299.631-km/s	299.634-km/s	= 3 km/s
100- km/sec	3934 to 3969 (35)	299.631-km/s	299.634-km/s	= 3 km/s
1000-km/sec	3946 to 3981 (35)	299.629-km/s	299.635-km/s	= 6 km/s
10.000-km/sec	4064 to 4100 (36)	299.643-km/s	299.646-km/s	= 3 km/s
274.000-km/s	6560 to 6620 (40)	299.703.-km/s	299.780.-km/s	= 77 km/s

Then to draw our attention to the expansions in the shifts verses the radial velocities. For each of the 35/36a in wave expansion there was an increase of 3 to 6/km, while the one with the greater expansion of 40A came to 77/km increase. **And why may that be so?** The answer is - **because it is a longer length, and as the lengths are greater and greater so the increase in their lengths must be greater to account for the same value in velocity**

This may be demonstrated by figure 2. If the angular moment in the light is shifted from 20 to 30 degrees there are (for the example) 5 points expansion in wavelength. From 30 to 40 it becomes 6 points. And to increase the angle by another ten degrees it becomes 9 points. Where then from 50 to 60 degrees there are 15 points, another ten degrees will multiply that to 40 points.

When therefore a receding object pulls on a wave by some 20/km/sec, if it be the shorter one like at 50 degrees, it must expand the wave more than if it were one at 30 degrees. And that expansion in the wave becomes greater and greater for the longer lengths just to keep up with the receding velocity.

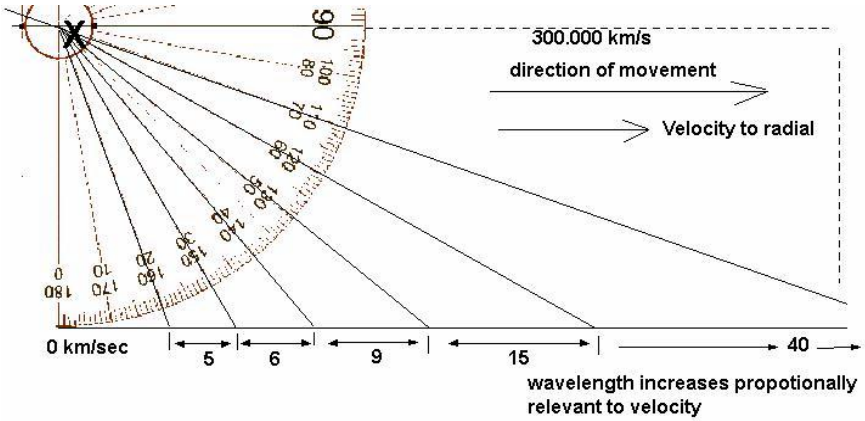

Figure 2. *Radial velocities verses wavelengths*

And so it becomes obvious how **a shift in wavelength is not directly proportional to the change in radial velocity.** Yet we are quite able to determine the correct relative velocity of any wave as long as it is computed by its three dimensional format. And for this we need the correct diameter of the wave into its circumference that varies for each octave of the spectrum.

I then came to the correct diameter and circumference by which light travels by using our own reading of the speed of light at 299.792-km/sec that I applied to the red length at 700/nm since that being the longest and fastest is first to arrive, that then came to 4.84A in the circumference.

The protractor in figure 6 depicts the reality in how waves are formed. Remember how all atoms are in rotation and when we impose fluctuations, or vibrations upon them to in all essence impose indents, those indents are in the angular by and in the natural rotations, that then as such become circular indents, a wavelet on the move rotating around a fixed diameter, a diameter implemented by our equipment, or in and by the composition. Electricity upon a filament in a standard light bulb will not generate radio waves, but the resonance is high enough for light-waves. For a radio wave our impulses need to be much longer for longer lengths and on a greater scale; that is a larger diameter.

Wave production

At this time it warrants us to behold just how waves are implemented. We used to do so with tubes etc.; that is now replaced by diodes and transistors. But old or new it all comes down to switching devices together with the speed at which that is done and in what frame of reference. High or low, long or short the principle in wave production is one and the same illustrated by figure 3.

It all starts out with nature's fundamental movement that at all times moves at the velocity of 300.000/km/s, our Constant. That movement is not like any other movement, it being the fundamental one seen with all that is magnetic or electric, or any wave of the spectrum all belonging to what is termed "Magnetism." (Ref-3) Then there are the atoms in nature that are driven in rotation by several reasons, first and fundamentally by that movement of constant in conjunction with what is yet more fundamental that as such I must leave to speculation having taken an oath.

In reference to figure 3 there is the ever fundamental movement to the left as indicated. Then as we with our devices create impulses by oscillation, vibration, or

resonance, it is like driving an angular momentum from X to Y. When therefore the diameter across which we are creating our drive is 10/mm, and we did so at the speed of 10.000/km/s X to Y, our belt moving at 300.000/km/s, the forward point of our impulse instead of arriving at Y; came to Z. This may be compared to a transport belt at which packages are places going down the line.

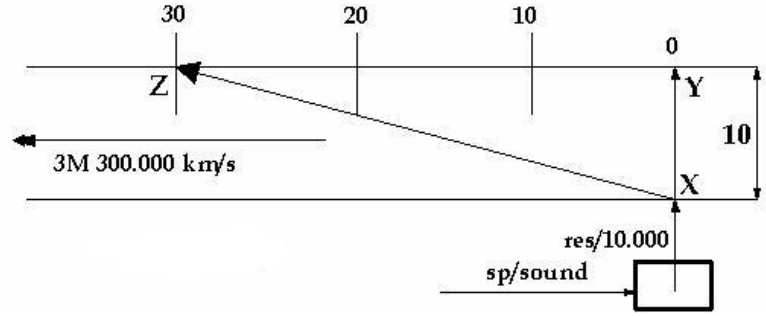

Figure 3. *Waves implemented by impulses upon the constant of velocity*

Our wave would then have a half-length of 30/mm with its full length at 60/mm passing around the circumference of 31.4/mm. The faster the impulse is driven so much the shorter the wave becomes, or slower to longer lengths. Point X then is the central point of the protractor.

But am I convincing? An electrical current with its rotating north and south polarities will obviously cause the atoms in an element to vibrate that then as such produce light-waves. (Ref-4) Or when we do the same thing with whole molecules, a million pack of them we will have much longer waves at much greater diameter. And why should they be rotational, why not flat on through space and air?

A flat on wave would be stopped at the first atom it encountered. If rotating waves have at least a 98 percent chance of getting around an oxygen atom in water, the instant it strikes upon the connecting point with the hydrogen atom it is history, how much less when for its width larger than any oxygen atom it would attempt to pass between atoms.

A wave as a flat entity – or back and forth movement - is simply preposterous, not only because it has no way to go, but it can never attain to the speed of light. And even by driving a single atom linearly into two other atoms as a fluctuation it by all logic becomes a rotational impulse. Our driving mechanism being rotational upon other rotational factors can only produce a rotational result taken away by the ever constant of velocity. Consider how a straight line is never a wave, but a line passing along atoms that when it circumvents these atoms appears as a wave. Only a rotating wave-like-line is able to pass through the media without any real obstructions other than as mentioned. Moreover; a wavelet of 5500a in length traveling at a diameter of less than 2a – when viewed by us in real time appears more like a straight line, its ratio being 2750 to 1. No wonder therefore that its velocity comes so close to the constant of velocity, while its high rotation provides for a straight trajectory.

More to the protractor

Now that we have noted wave production that at all times follows in the way illustrated by the protractor we might wish to see more evidence. Therefore below is a "Comparison chart." Note when a blue color wave is expanded by 40/a, it required a

3.6/km/s velocity, the same expansion by an 8000/a wave came to only 0.9/km/s. At 6800/a with a 200/a expansion comes to 6.1/km/s, but at 8000a it will only be 4.4/km/s. As the length of a wave is greater, so much the more it needs to be increased in length for the same value of velocity.

Comparison chart. (4.84a circumference)

1:	4000 to 4040A	299.637.4 km/s to 299.641.0 km/s	= 40a = 3.6-km/s
2:	6800 to 6880A	299.786.6 km/s to 299.789.1 km/s	= 80a = 2.5-km/s
3:	6800 to 6900A	299.786.6 km/s to 299.789.7 km/s	= 100a = 3.1-km/s
4:	6800 to 7000A	299.786.6 km/s to 299-792.7 km/s	= 200a = 6.1-km/s
5:	8000 to 8040A	299.818.6 km/s to 299.819.5 km/s	= 40a = 0.9-km/s
6:	8000 to 8200A	299.818.6 km/s to 299.823.0 km/s	= 200a = 4.4-km/s

Another chart shows the lengths from 1500/a to 8000/a by an increase of 500/a, and their velocities. When therefore there is a 500/a red shift into any wavelength, what must the radial velocity be in order to accomplish the same? It by no means is a straight line calculation, but **fixed to the protractor**, in its angles towards a line upon it. In other words, by the degrees illustrated here. The velocities and consequent increase or decrease in radial velocities, with the increments as shown all in itself **confirms how light is generated and send on its way in that manner.**

Amplitude (diameter) into circumference at 4.84A

Wavelength	Relative/Velocity	Radial/Velocity	Increment	Red shift
8000A	299,818.km/s	12. km/s		500A
7500A	299,806.km/s	14. km/s	> 1.73	500A
7000A	299,792.km/s	16. km/s	> 2.12	500A
6500A	299,776.km/s	18. km/s	> 2.65	500A
6000A	299,758.km/s	22. km/s	> 3.38	500A
5500A	299.736.km/s	27. km/s	> 4.39	500A
5000A	299,709.km/s	32. km/s	> 5.85	500A
4500A	299,677.km/s	40. km/s	> 8.04	500A
4000A	299,637.km/s	52 .km/s	> 11.48	500A
3500A	299,585.km/s	69. km/s	> 17.21	500A
3000A	299,516 km/s	96. km/s	> 27.52	500A
2500A	299,420. km/s	145. km/s	> 48.55	500A
2000A	299,275 km/s	240. km/s	> 95.20	500A
1500A	299.,035 km/s			

For a short wavelength of no more than 1500/a to be red shifted by 500/a; a radial velocity of 240/km/s is required. Whereas at the other extreme when a 7500/a is red shifted by 500/a; a mere 14/km/s will accomplish it Or looking at it the other way around, a radial velocity of 145/km/s will red shift a 2000/a length by 500/a, while the 6000/a length will receive the same 500/a increase in length by a mere 18/km/sec.

And notice how the increments from 8000/a to 1500/a graduates from 1.73 to 95.2, all because of the nature in the protractor. (Degrees in the circular to a fixed line.)

Conclusively, the longer the length, so much the smaller the radial velocity will be in order to come by an equal proportion in the expansion of the wave. Or putting it another way, a longer length must be expanded more for the same radial velocity compared to any shorter length. All this because waves of all kind and size are formed by the manner illustrated in the protractor, that is the same as saying, into the angular from zero to 90 degree, in the full relevance thereof.

A wave that goes once around the circle in a distance of 2000/a, will travel slower by 543/km/s than a wave going once around the circle in a distance of 8000/a. The more turns a wave must make for any given distance so much more its velocity for distance in time will be decreased. That is how and why a blue color wave is always slower for distance in time compared to the red color wave. And this holds true in any and all media inclusive so called empty space – that is never empty. **In the manner by which all waves are propagated every different length can only and must always travel at its own relative velocity.**

In my estimation the first segment of the waves range from 100/nm to 1000/nm, all of which are formed on the atomic level, by a circumference to fit around the atoms. When thus the lengths come to exceed 1000/nm, these can no longer be formed on the atomic scale, since then they would come to be more of a straight line, too close to the 90 degree mark.

The next segment of waves for their circumference must be produced on the molecular level, for as the circumference increases so longer lengths may be produced. What we need is to perform some research, like for the example, taking a 1/mm, or 1/cm wavelength, and somehow accurately measure at what speed that wave will travel. With that information we can then find the correct amplitude, or circumference by which it traveled.

We know that waves on the atomic level, such as light - do not pass through a stucco wall, yet a radio wave does. And that as we conjecture is because it travels on something greater than the atomic scale, wherefore I pronounced to say molecular. But how exactly is it for a radio wave to pass so easily through a stucco wall? That is something we ought to apply our minds to. Or again, what is it that will stop or divert a radio wave, or a microwave? If we correlate all that information along with it, we may come up with some answers.

By my calculation a 1/meter wave might travel by a diameter of nearly 5/mm, but if this be correct or not is as yet to be established. The principle may be correct, but the figures used are but to convey the principle, and will require a factual reading of some waves in different segments to come to more accurate figures.

Will I now be taken at my word, or will it be said; "We can't tell if he be right"? I do not expect anyone to take me at my word, **but I do expect man to consider and accept such facts as are obviously displayed for their reality.**

Waves never continues

This too may come as a revelation that the waves of the spectrum are never continuous waves. (Ref-5) The obvious reason as to why is because they are at all times momentary impulses that as such means, a switching, a back and forth movement, a stop and go, a form and cut, and since the speed of nature's constant is at all times higher than any other of the atomic realm, it is utterly impossible to connect any one wavelet to the

one ahead of it. In the calculus alone it is that we can find the maximum number of wavelet to fit in any length. And it as such is only expedient in the calculus, never at all in reality.

Example: If a 5/cm carrier wave is produced it will travel at the diameter of 0.004584-cm its relative velocity then will be 299,138/km/s, if then we wish to imbed an 8/cm wave upon it as our code, the 8/cm will have a relative velocity of 8 plus 0.004584 X 3.14 = 8.01439376 into 300,000 = 37437 X 8 = 299,461-km/sec. The 8/cm wave then cannot possibly be imbedded because it will and must travel 323/km/s faster than the 5/cm wave. **Conclusively we can never at any time attach or imbed any wave upon another wave of any different dimension, since each different wave always travels by its own relative velocity.**

Nor is it possible to generate any wavelength to its maximum frequency. The 5/cm wave has room for 30 billion wavelets end to end in 300.000/km to pass in one second. If then we could turn a switch on and off at the speed of light, meaning 30 billion times in one second, the on would be 15 billion times, with off 15 billion times. Our frequency would then be 15 billion, only half of what it can contain. Nor therefore can these many wavelets be continues, but each individual is spaced by the distance of another individual. We however have no device to make anything turn off and on at that rate, or even to speak that fast. If we generate 15.000 voice impulses per second on a 5/cm band there are 2 million open spaces between wavelets, and that can hardly be considered a continues wavelength.

The waves of the spectrum for all its octaves are never at all continues, these come as individual wavelets, like a code placed upon a line, and they can serve us as codes in much the same way as done with the old telegraphs, and that can be done with any of them inclusive those of light. The common way is to set up a standard frequency, then to vary the impulses, modulation as it is called.

These impulses as codes serve us and nature in many ways each in their own way for size and multitude. For just as a picture can be converted into wavelets, it by the same token can be reconverted into a visible picture again. Light and microwaves from the sun serve us for warmth simply by their rotation that as they strike upon the larger atoms cause an increase in their rotation that in turn spells heat, a higher temperature. The greater the number of them falling upon any one spot will increase the temperature, like a magnifying lens to start a fire. For that is also why we sweat at the equator and freeze at the polar region, the quantity of waves at any one area.

As now the electrical wave is at all times a "continues" format, and that obviously so since it is at all times connected to a source, and likewise those of the linear magnetic flow always connected to a source or inhibiting one, yet the latter shows itself in circles rather than conventional waves. The electrical as a rotating magnetic format (Ref 3) first of all shows itself in the same manner like any magnet, but because it rotates it alternately brings its north and south polarity to our probes that then can be imprinted upon a screen at any rotational speed that we desire making its up and down polarity appear as waves.

All other waves are like momentary indents imbedded upon the fundamental movements and at that instantly taken away by the constant. And since we can't very well observe a single wavelet traveling at the speed of light these waves can never be seen, nor displayed.

Conclusion

Once we understand the nature of light, and adapt the right mathematics we can at last hint at the radial velocities of an object in the sky. Refraction then plays a devastating role in finding any object at a straight line of sight. And when we combine changes in velocity with the change in direction there is literally no way to determine a real velocity of any object in the heavens, or its distance from us. Our calculations therefore are estimates. We then ought to conform ourselves to the reality in nature not only with waves but with the atom in its whole and Hubble's law being quite in error.

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